

REMARKS

Claims 12-21 are all the claims pending in the application.

Claim 17 has been amended to recite a lower limit for Mo, support for which can be found, for example, in claim 14.

Entry of the above amendment is respectfully requested.

In the Advisory Action of June 16, 2010, the Examiner notes that "it is unclear on what basis applicant argues that the prior art steel is not dual-phase." *See* page 2 of the Office Action.

It is submitted that a dual-phase structure of a steel (that is, a structure with presence of both ferrite and martensite giving high tensile strength) is in itself a remarkable property. If the steels of Higo were of this particular type, Higo would undoubtedly mention that fact in the disclosure. In view of the lack of disclosure, it is submitted that one of ordinary skill in the art would understand that the steels of Higo do not have a dual-phase structure.

Another reason that the steels of Higo are not dual-phase steels is that dual-phase steels are remarkable in that they have a low yield strength/tensile strength (YS/TS) ratio of about 0.5. *See* "Dual-phase steel" (http://en.wikipedia.org/wiki/Dual-phase_steel) submitted herewith.

As can be seen from the lower part of Fig. 1 of Higo, the steels of Higo have a YS/TS ratio which is by far higher than 0.5, e.g., between 0.8 and 0.95, according to the cold rolling reduction ratio undergone by the strip. The figures of Tables 2, 4, 6, and 8 also show that the steels of Higo have YS and TS values relatively close one to each other, and as a result YS/TS ratios are higher than 0.5.

In contrast to Higo, the steels of the present invention possess a YS/TS (or Rel/Rm) ratio of about 0.5. For example, Examples D, E, F according to the invention exhibit Rel/Rm ratios of 0.62, 0.50 and 0.58, respectively. The ratio increases with the martensite proportion; that is, with the dual-phase properties of the steel.

Furthermore, it is noted that in the lower part of Fig. 1 of Higo, there is a linear increase of the tensile strength and the yield strength when the cold-rolling reduction rate is itself increased. A dual-phase steel has quite a different behavior. The strength(s) increase is first linear, which corresponds to the deformation of ferrite, with a steep slope. But from a given value of the reduction rate that corresponds to the beginning of the deformation of martensite, which is difficult to obtain, the strength increase is suddenly and considerably diminished, and the slopes of the curves which would correspond to Fig. 1 of Higo become gentle. Thus, it is clear, to one of ordinary skill in the art that the steels of Higo are not of the dual-phase type: the linearity of the above cited curves of Higo shows that only one phase is significantly present.

For at least the foregoing reasons, it is submitted that present claims are patentable over Higo, which do not teach or suggest steels having a dual phase.

In view of the above, reconsideration and withdrawal of the rejection is respectfully requested.

If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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